THE COMMONWEALTH OF MASSACHUSETTS
DEPARTMENT OF LABOR
DIVISION OF OCCUPATIONAL SAFETY
OCCUPATIONAL HYGIENE / INDOOR AIR QUALITY PROGRAM
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Ventilation Standards Referenced by the Massachusetts State Building Code Since 1975[1]

Ventilation Standards referenced by the State Building Code, with effective dates	Offices		Conf Room		Classrooms		Libraries		Cafeteria Lunchrooms		School Corridors	
	Total	O. A. Min.	Total	O. A. Min.	Total	O. A. Min.	Total	O. A. Min.	Total	O. A. Min.	Total	O. A. Min.
Schoolhouse Std., Form B-2, 1972 effective from 8/72 to 1/79					24	10[2]			1.5/ sqft	0.75/ sqft[3]		
ASHRAE 62-73, eff. 1/75 to 1/79	15	5	25	8			7	5				
BOCA 1978, 1/79 to 7/88[4]	15	5(***10***)[4]	25	6(***10***)[4]	10	5(***10***)[4]	7	5(***10***)[4]	10	5(***10***)[4]	15	5(***10***)[4]
BOCA 1987, 7/88 to 10/97[4]	20	7(***10***)[4]	35	12[4]	25	8(***10***)[4]	7	5(***10***)[4]	35	12	0.02/sqft	
BOCA 1993, 10/97 to present	20	20	20	20	15	15	15	15	15	15	0.1/sqft	

Definitions: Total refers to the total air supply rate (mixed outside air and re-circulated air) to a space per occupant; O.A. = Outside Air flow rate; min. = minimum; All flow rates are Cubic Feet Per Minute (CFM) per occupant except where followed by /sqft, these are CFM per square foot of floor space.

A. ASHRAE 62-73 - *67%* recirculation allowed with normal filtration, 85% with special; 5 CFM O.A. min.
B. BOCA 1978 - 75% recirculation allowed with normal filtration, 85% with special: 5 CFM O.A. min.
C. BOCA 1987 - 67% recirculation allowed with normal filtration, 85% with special: 5 CFM O.A. min.
D. BOCA 1993 - no provision for reduced outside air with recirculation, rates are minimums for O.A. and total air supply

[1] Prior to 1975, there was no comprehensive, uniform state building code in Massachusetts. The Department of Public Safety adopted the Board of Schoolhouse Structural and Ventilation Standards, Form B-2, in August, 1972, as a statewide standard for school construction.

[2] Schoolhouse Std 1972 - Starting at temps below 35F, O.A. may be reduced progressively to 0 CFM at 0F. Min. O.A. of 5 CFM with air conditioning. Standard also calls for 9 cfm dedicated exhaust ventilation per occupant.

[3] Exhaust shall be min of 4 air changes per hour or 0.75 cfm/sqft whichever is less; with ceiling >15 ft use 2 air changes per hour.

[4] MA Building code (Fourth Edition), has under Section 78 CMR 707.1: "**Exception:** The minimum amount of fresh outdoor air quantity for schools and office buildings shall not be less than 10 cfm per person. Recirculation of air supplied to kitchens, lavoratories, toilet rooms, bathrooms, rest rooms, laboratories and garages shall not be permitted." (6/12/87)

Example: A classroom (built in the mid 70s, Schoolhouse Std), 30 occupants: Total ventilation air supply rate = 24 cfm (total) X 30 = 720 cfm , Outside Air supply rate = 10 cfm X 30 = 300 cfm. Re: note 2, dedicated exhaust air flow rate = 9 cfm X 30 = 270 cfm.

A classroom (built in early 80s, BOCA 1978), 30 occupants: Total ventilation air supply rate = 10cfm X 30 = 300 cfm. Outside Air supply rate (minimum) = 5 cfm X 30 = 150 cfm.

A classroom (built in 1989, BOCA 1987), 30 occupants: Total ventilation air supply rate = 25 cfm X 30 = 750 cfm. Outside Air supply rate (minimum of 10 set by building code provision 78 CMR 707.1 (see note 4)) = 10 cfm X 30 = 300 cfm